Consider using Integrated Pest Management techniques

What to do

Many of you are already using some Integrated Pest Management practices on your farms to control insects, weeds, diseases, and vertebrates. Consider combining these practices into a "made for your farm" Integrated Pest Management (IPM) program that's scientifically-based, economically sound, and beneficial to the environment.

With IPM, pest management is accomplished by encouraging biological control; choosing resistant varieties or certified seed; using oils, pheromones, or selective chemicals; planting permanent borders and cover crops; adopting alternative cultivating, pruning, or fertilizing practices; rotating crops; modifying tillage and sanitation practices; choosing planting and harvesting times to avoid major pests; and modifying the habitat to make it less compatible with pest development. Some of these practices help wildlife, too, by creating seasonal habitat and reducing the presence of chemicals in the environment.

Pesticides are still used in most IPM programs, based on careful field monitoring. Specific products are chosen, particularly those that spare non-target organisms and/or those which have shorter active or residual periods. They are selectively applied, in a manner that is least disruptive to wildlife and the environment. Some have even been certified as acceptable for organically grown crops. In certain crops, an IPM program can include purchase and release of biological agents, such as predators, parasites, and pathogens, to further combat pests while reducing reliance on pesticides.

Farmers with IPM programs carefully track development of pest populations, weather, and crop development so corrective measures can be instituted when needed. These monitoring programs can help make less toxic pesticides more effective. Monitoring programs have helped reduce pesticide use in tomatoes, grapes, strawberries, apples, pears, almonds, walnuts, beans, sugarbeets, alfalfa, cotton, and other crops. For instance, many peach growers have eliminated or substantially reduced the use of broadspectrum pesticides with carefully timed sprays of a microbial insectide (Bacillus thuringiensis) for peach twig borer and by distributing pheromone dispensers to disrupt mating by the oriental fruit moth.

To maintain a farming livelihood, farmers know they must truly be stewards of the land. IPM programs offer a way to provide effective, cost efficient, and reliable protection for crops while sustaining the land, wildlife—and the farming way of life.

Benefits:

- Encourages wildlife populations by reducing the potential exposure of wildlife and beneficial insects to fertilizers, insecticides, and herbicides.
- Creates or enhances wildlife habitat in non-crop areas for beneficial insects and other species, including pheasants and quail.
- Provides seasonal cover for wildlife in fields or field borders planted with cover crops or insectary plants.
- Attracts birds that help suppress insect pests and consume weed seeds.
- Reduces use of fertilizers, insecticides, and herbicides and associated equipment and labor expenses related to application.
- Decreases soil erosion and dust when vegetation is planted in previously exposed areas.

JACK KELLY CLARK/UC STATEWIDE IPM PROJECT

IPM programs are developed specifically for your farm. Some farmers are using biological controls, such as predators, parasites or pathogens, to combat farm pests. The bigeyed bug pictured attacks mites, insect eggs, and small insects.